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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,111

03/31/2006

Yasuhiro Tada

2006-0371A

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SUITE 800

WASHINGTON, DC 20006-1021

EXAMINER

FORTUNA, ANA M

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

09/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,111	Applicant(s) TADA ET AL.	
	Examiner Ana M. Fortuna	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/11/08, 8/4/08</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The rejection was discussed in paragraphs 5-6, 8-9 of paper of 12/11/07.

3. Claims 1-4, 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 1063256). Patent '256 discloses a process of making a hollow fiber membrane of polyvinylidene fluoride with high water permeability, the membrane is microporous and made from vinylidene fluoride of an average molecular weight of 1×10^5 or "more"; this patent also suggests using mixtures of vinylidene fluoride homopolymers (abstract, paragraphs 0012-0068, and page 14, lines 4-9). This patent further teaches stretching the membrane before removing the solvent (page 4, 28-31). The total vinylidene fluoride percentage can be selected as 60%, which is within the range in the present claims (page 4, paragraph 0019-0020) the stretching is also disclosed in the later section. Patent '256 fails to disclose the specific percentages of the different molecular weight vinylidene fluoride, the skilled artisan at the time this invention was made would have been motivated to use combination of the homopolymer depending on the tensile strength required in the final product. Patent'256 teaches vinylidene

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fluoride molecular weight of covering values of 1.8×10^6 , 3.62×10^5 . Based on the suggestion of using "mixtures", the skilled artisan at the time the invention was made would have been able to select molecular the vndf with in the ranges of claim 1 of the present invention.

The inner diameter of the membrane, as in claim 6, and permeability as in claim 1 are further disclose (paragraph 0108, and 0104).

Double Patenting

3. The double patenting rejection of paragraphs 10 to 11 on paper of 12/11/07 is also maintained.

4. The Declaration filed on 7/9/09 has been considered by the Examiner.

Response to Arguments

4. Applicant's arguments filed 6/11/08 have been fully considered but they are not persuasive. The Declaration is considered, which declaration is focus in demonstrating the importance of stretching the layer of membrane and the specific blend or types of PVDF. The declaration states that an increase in water permeability are obtained by the stretching step in the current process and optimum results are shown in Table A; and further states that the polymer mixture 'remarkable facilitate the stretching "of an unstretched fiber membrane. Stretching is suggested in patent '773, e.g to increase pore size and porosity, and the effect in mixing vinylidene fluoride resin of different molecular weight is also discussed, therefore the benefits in the stretching process is inherent in the prior art. The claims in the present application are directed to "a

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membrane” . The membrane itself need to be evaluate with respect to the prior art to determine allowability of the claims. Applicant fails to compare stretched membrane to stretched membrane, and indicate what properties are imparted to the membrane, such that the membrane can be distinguished form the prior art, by using a composition with the mixture of different molecular weight vinylidene compounds, as compared to one single compound.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ana M. Fortuna whose telephone number is (571) 272-1141. The examiner can normally be reached on 9:30-6:00 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ana M Fortuna
Primary Examiner
Art Unit 1797

/Ana M Fortuna/
Primary Examiner, Art Unit 1797